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SECOND COMMUNICATIONS FROM PARTIES INCLUDED IN ANNEX I TO THE CONVENTION

ACTIVITIES OF PARTIES INCLUDED IN ANNEX II RELATED TO TRANSFER OF TECHNOLOGY

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Explanatory notes

The following ISO country codes have been used:

Party	**Country code**
Austria	AUT
Belgium	BEL
Canada	CAN
Denmark	DNK
Finland	FIN
France	FRA
Germany	DEU
Greece	GRE
Iceland	ICE
Ireland	IRE
Italy	ITA
Japan	JPN
Luxembourg	LUX
Netherlands	NLD
New Zealand	NZL
Norway	NOR
Portugal	POR
Spain	ESP
Sweden	SWE
Switzerland	CHE
United Kingdom of Great Britain and Northern Ireland	GBR
United States of America	USA

I. INTRODUCTION

A. Mandate

1. The Conference of the Parties (COP), in decision 13/CP.1, requested the secretariat to prepare an itemized progress report on concrete measures taken by Annex II Parties with respect to the transfer of environmentally sound technology and know-how necessary to mitigate and facilitate adequate adaptation to climate change. Subsequently, in decision 7/CP.2, the COP requested the secretariat to enhance its progress reports with information from the national communications from Parties included in Annex II to the Convention, due in April 1997. The COP, at it second session, also asked the secretariat to make suggestions with regard to further improvements in the format for reporting information on the transfer of existing environmentally sound technologies and know-how from Annex II Parties.

2. At its second session, the COP also requested the Subsidiary Body for Implementation (SBI) to evaluate and report on the transfer of technologies being undertaken between Annex II Parties and other Parties, and to do so by drawing on a roster of experts (decision 7/CP.2).

B. Scope of the note

3. In response to the above mentioned requests, this note provides a compilation and synthesis of actions taken by reporting Annex II Parties with respect to finance and transfer of technology, and describes how the reporting guidelines in this area were followed in the preparation of national communications. As a result of the data limitation described below, the secretariat has deferred compilation of comprehensive financial tables to a subsequent report. Suggestions on steps to improve reporting will be provided after additional communications are received by the secretariat

4. This note draws on the information contained in the second national communications provided to the secretariat by 15 Annex II Parties as of 25 August, 1997. In accordance with Article 12.3 of the Convention, 14 of these 15 Parties described measures taken to meet their commitments outlined in Article 4.3, 4.4 and 4.5.[1] It also expands upon information presented in the first compilation and synthesis of second national communications from Parties included in Annex I to the Convention (FCCC/SBI/1997/19 and FCCC/SBI/1997/19/Add.1). The note also draws on information contained in the first technical paper of the secretariat on terms of transfer of technology and know-how (FCCC/TP/1997/1) and information provided by the Global Environment Facility (GEF) to the SBI (FCCC/SBI/1997/2).

5. The secretariat is seeking observations on this document from experts nominated to the

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[1] Austria, Belgium, Canada, Finland, France, Germany, Iceland, Ireland, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

roster by governments. Any observations and comments received by 1 October 1997 will be compiled and made available for consideration at the seventh sessions of the SBSTA and the SBI, in accordance with the mandate of the COP to draw on the roster of experts.

C. Availability of data

6. It should be pointed out that this note does not represent a comprehensive progress report on actions in these areas for two reasons. First, it is limited by the fact that the activities of some Annex II Parties (AUT, DNK,ESP, GRE, ITA, JPN, LUX, PRT, and the European Community) have not been considered because their second national communications were not submitted in time to contribute to this note. Second, of those Parties that submitted a national communication, many did not always provide all the information required to produce a comprehensive report on progress (see section IV). For example, financial contributions to relevant multilateral institutions and programmes were often not reported, many national communications provided limited detail on bilateral programmes related to the implementation of the Convention, and there was little discussion of transfer of technology through the private sector.

D. Possible action by the Subsidiary Body on Scientific and Technological Advice (SBSTA)

7. The SBSTA may wish to:

(a) Take note of the information on the actions taken by reporting Annex II Parties with respect to finance and transfer of technology, and take it into account in its further considerations regarding the development and transfer of technology;

(b) Request all Annex II Parties that have not yet submitted their second national communication to follow the reporting guidelines in this area,

(c) Urge those Parties that have already submitted their second communication to provide supplementary information on finance and transfer of technology, if their initial information was incomplete,

(d) Recall its mandate to the secretariat to assess the effectiveness of the reporting guidelines and note that the secretariat intends to propose changes to the guidelines for consideration at the ninth session of the SBSTA in November 1998; and

(e) Request the secretariat to investigate additional means of obtaining information, with a view to enhancing the transfer of information and technology to non-Annex II Parties to the Convention, e.g. by workshops, bearing in mind that some activities in the SBSTA work programme are also relevant in this respect, such as those to examine technology information centres and networks.

II. BACKGROUND

8. The annex to decision 9/CP.2 requests that Annex II Parties provide in their national communications detailed information on activities and multilateral and bilateral financial contributions made in 1994, 1995, and, if available, in 1996, to give effect to their commitments under Article 4.3, 4.4, and 4.5 of the Convention. It also states that Parties should identify and define "new and additional" financial resources, distinguish between activities undertaken by the private sector and the public sector and describe assistance provided to meet the costs of adaptation to the adverse effects of climate change. Five sample tables were provided to facilitate reporting of this information.

III. COMPILATION AND SYNTHESIS OF INFORMATION PRESENTED IN NATIONAL COMMUNICATIONS

A. Multilateral

1. Transfer of technology

9. As noted in the first technical paper of the secretariat on terms of transfer of technology and know-how (FCCC/TP/1997/1), multilateral institutions and programmes facilitate the transfer of technology by supporting capacity-building activities such as strengthening institutional capacity, establishing research centres and funding demonstration projects. They also influence private financial markets to support technology transfer. Finally, many of the climate change mitigation and adaptation projects supported by multilateral institutions and programmes include some activities that facilitate transfer of technology.

2. The financial mechanism

10. The GEF is designated as the entity entrusted with the operation of the financial mechanism on an interim basis. Three Parties (GBR, NLD, USA) noted the contribution made by the GEF to transfer of technology. In particular, these Parties noted the role of the GEF in financing enabling studies, capacity-building and institutional development, reducing barriers to the commercial viability of low- or no-greenhouse gas technologies; and funding measures to mitigate climate change.

11. As of December 1996, the GEF had contributed US$ 266 million to climate change related activities in the pilot phase and US$ 262 million in subsequent work. These GEF funded projects also secured an additional US$ 2.73 billion in co-financing support.

12. Approximately 13 per cent of the funds of the GEF were specifically directed toward capacity-building and enabling activities. Projects supported with these funds include: participation in the Intergovernmental Panel on Climate Change (IPCC), enabling activities for the implementation of the Convention and the preparation of the initial national communications

such as inventory studies, mitigation strategies, studies on vulnerability to climate change and adaptation options, research and monitoring programmes related to greenhouse gas emissions.

13. The vast majority of the funds of the GEF (84 per cent)[2] supported projects directly related to the reduction of greenhouse gas emissions and the enhancement of greenhouse gas sinks. These projects fall into four categories, three defined as long-term operational programmes such as energy efficiency, renewable energy and reducing the long-term costs of low greenhouse gas emitting technologies. The fourth category refers to short-term response measures in the form of high priority projects which yield climate change benefits at low costs. All of these projects contribute to the transfer of "hard" and "soft" technologies related to climate change mitigation.

14. Approximately 18% of GEF funds have gone to twelve projects that are designed to remove barriers to energy conservation and energy efficiency. These projects focus on efforts to improve energy efficiency in building construction, lighting, electric power generation and industrial boilers. Some projects also have a component that addresses energy planning.

15. Eighteen projects have received approximately 33 per cent of GEF funding to support the removal of barriers to the use of renewable energy. Renewable energy technologies supported include solar water heating, photovoltaics, biogas, wind power, small hydro installations, and landfill methane recovery.

16. Efforts to reduce the cost of low greenhouse gas emitting technologies have received approximately 26 per cent of GEF funds. These five projects support biomass, geothermal, wind, and solar thermal energy technologies.

17. Approximately 19 per cent of GEF funds support twelve projects that represent short-term response measures to climate change. These projects focus on sustainable management of woodlands and rangelands, fuel switching from coal to gas, coal bed methane as an energy source, improved transmission and distribution of natural gas, and the reduction of greenhouse gas emissions from the transportation sector.

18. Decision 9/CP.2 requests that Annex II Parties identify their financial contributions to the GEF in 1994, 1995, and, if available, 1996. Eight Parties (BEL, CHE, DEU, FIN, GBR, IRE, NOR, NZL) reported their contributions to the GEF for at least one of these years. Another five Parties (AUT, FRA, NLD, SWE, USA) reported their total contribution to the GEF over a multi-year period. Finally, two Parties (CAN, ICE) did not describe their contribution to the GEF in their national communication.

19. Table 1 provides an overview of the information reported on contributions to the GEF in the national communications of Annex II Parties. As table 1 illustrates, these numbers were

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[2] Several other miscellaneous projects will bring the total reported in paragraphs 14 to 17 to 100 per cent

difficult to compare with the figures published by the GEF secretariat.[3] According to GEF figures, the funding from reporting Parties constitutes 63.89 per cent of the total over the 1994-1996 period.

Table 1. Contributions to the GEF from reporting Annex II Parties (1994-1996) (US$ million)

Country	1994 As reported in national comm.	1995 As reported in national comm.	1996 As reported in national comm.	1994-1996 As reported in national comm.	1994-1996 As reported by the GEF[1]	% paid As reported by the GEF[1]
Austria[2]					14.69	75.0
Belgium[3]					20.45	64.5
Canada[4]					53.60	66.6
Finland[5]	7.92	9.46	9.22	26.60	24.90	100.0
France[6]					106.89	75.0
Germany	75.31	0	126.84	202.15	177.70	75.0
Iceland[7]						
Ireland			0.68	0.68	1.33	51.8
Netherlands[8]					52.87	75.0
New Zealand	1.68	1.68	1.68	5.04	5.39	75.0
Norway	7.78	8.66	8.53	24.97	24.88	75.0
Sweden[9]					59.29	100.0
Switzerland	11.68	13.45		25.13	33.17	75.0
United Kingdom of Great Britain and Northern Ireland[10]	11.35	10.52	18.52	40.39	109.43	75.0
United States of America[11]					190.00	44.2

[3] Problems are mainly related to different reporting and accounting systems, as well as the different exchange rates applied.

NOTES TO TABLE 1, 1994-1996

1 This information was obtained from document GEF/R.2/Inf.3, April 15, 1997. Data refer to contributions paid and commitments received by GEF, for the first replenishment, as of March 31, 1997.

2 Austria indicated in its national communication that it contributed US$35 million to the GEF pilot phase and US$20 million to the first replenishment of the GEF. In addition, Austria committed up to SDR 4.5 million for a bilateral GEF-Consultant Trust Fund.

3 Belgium indicated in its national communication that it contributed FB 320 million for 1994-1995, FB 390 million for 1996 and FB 390 million for 1997 to the GEF. In addition, Belgium contributed up to 5 million SDR to the GEF in its pilot phase.

4 Canada did not provide any information on its financial contributions to the GEF.

5 Finland indicated in its national communication that all of its GEF contributions represented new and additional resources except for US$218,000 in 1996.

6 France indicated in its national communication that it was contributing MF 807 to the GEF in the period 1994-1997.

7 Iceland did not provide any information on its financial contributions to the GEF.

8 The Netherlands indicated in its national communication that, until the year 2000, it has set aside a sum of NLG 120 million to contribute to the GEF.

9 Sweden indicated in its national communication that it has contributed about SEK 650 million to the GEF during its pilot phase and through 1997.

10 The information on contributions provided by the United Kingdom is for the budget years 1994-1995, 1995-1996 and 1996-1997.

11 The United States of America indicated in its national communication that aside from project development investments and co-financing by agencies and non-governmental sources, it has contributed US$190 million to the GEF operation phase to date. It also states that it is working with Congress to fulfill its current pledge to the GEF of US$430 million.

3 Financial contributions to other multilateral institutions and programmes

20 Four Parties (CHE, GBR, FIN, NZL) provided information on their annual financial contribution to the World Bank. While some of these Parties only provided a single figure for their World Bank contribution (FIN, GBR), other Parties reported separately contributions to the International Development Agency (IDA) (CHE, NZL) and the International Bank for Reconstruction and Development (IBRD) (CHE, ICE). One Party (IRE) reported a contribution to the IDA, but provided no other information on contributions made to the World Bank. Four Parties (CHE, GBR, IRE, NZL,) also reported their annual contributions to the International Finance Corporation (IFC). Two other Parties (DEU, FRA) included their financial contribution to the World Bank in a larger number outlining their financial contribution to a number of multilateral institutions.

21 Two Parties (CHE, GBR,) provided information on their annual contributions to each of the following regional development banks: the African Development Bank, the Asian Development Bank, the Inter American Development Bank, and the European Bank for Reconstruction and Development (EBRD). One Party (FIN) provided information on contributions to three of these banks, one Party (CAN) provided information on contributions to two of these banks, and two Parties (ICE, NZL) provided information on contributions to one of these banks. Two other Parties (DEU, FRA) included their financial contribution to regional institutions in a larger number outlining their financial contribution to a number of multilateral institutions. Contributions to other multilateral institutions were also identified in four of these national communications. (FIN - Nordic Development Fund, European Community) (ICE - Nordic Environment Finance Corporation) (BEL, NZL - International Fund for Agricultural Development (IFAD))

22 Seven Parties (AUT, CHE, GBR, FIN, FRA, ICE, NZL) reported their annual contributions to the United Nations Development Programme (UNDP). Two Parties (FIN, GBR) also provided information on their annual contributions to the United Nations Environment Programme (UNEP), one Party (BEL) reported on its contribution to the Special Programme for Africa. Finally, four Parties (AUT, CAN, IRE, NLD) provided data on either part or all of their contributions to activities supporting the United Nations Framework Convention on Climate Change (UNFCCC) process.

23 Five Parties (CHE, FIN, GBR, NLD, NZL) provided data on contributions to a wide variety of multilateral scientific programmes. It should be noted, however, that virtually all reporting Parties described work they were undertaking as part of multilateral scientific programmes in their discussions of activities related to research and systematic observations. Two Parties (AUT, CHE) provided data on contributions to specific multilateral technology programmes and three Parties (CHE, ICE, NZL) provided data on contributions to a number of different multilateral training programmes.

24. The limited and inconsistent nature of reporting on financial contributions to multilateral institutions and programmes has made it infeasible to present this data in the form of a summary table.

B. Bilateral

25. Information on bilateral financial contributions related to the implementation of the Convention was provided by 14 of 15 reporting Parties.

26. The level of detail provided on bilateral initiatives varied significantly in different national communications. One Party (USA) provided a detailed description of each of 70 separate bilateral projects and programmes, including the financial resources provided and the country and sector receiving the assistance. Six Parties (DEU, FIN, FRA, GBR, NLD, NZL) provided a general overview of the objectives and approach of their bilateral initiatives with reference to a few specific examples of individual projects and programmes, as well as detailed information on the financial resources provided by country and sector. Two Parties (AUT, CHE) pursued a similar approach but provided little information on individual projects and programmes. The remaining Parties (BEL, CAN, ICE, IRE, NOR, SWE) provided limited but varying amounts of textual information on their bilateral initiatives and no data on associated financial resources.

1. Transfer of technology

27. Most reporting Parties described bilateral policies and programmes that transfer either "hard" or "soft" technologies to developing countries and countries with economies in transition. The vast majority of "hard" technologies were transferred in the energy sector. "Soft" transfer of technology, such as the transfer of "know-how" through education and training, planning and management assistance, and institution building (e.g., legislation and regulations), were an element of most of the bilateral policies and programmes described in all sectors.

28. Bilateral projects reported in the energy sector were directed toward a number of different objectives. For example, six Parties (DEU, FRA, GBR, IRE, NLD, USA) indicated that some of their bilateral assistance is targeted at improved energy sector planning and management, as well as market reforms in the energy sector.

29. Another common objective reported for bilateral projects in the energy sector was improving the efficiency with which energy is produced, transmitted and distributed. Eleven Parties (AUT, BEL, CAN, CHE, DEU, FIN, FRA, GBR, IRE, SWE, USA) described activities in this area. Energy efficiency improvements at coal and diesel powered generating stations, hydroelectric facilities, nuclear power plants, and combined heat and power plants were specifically mentioned as were efforts to diminish losses from the transportation and distribution of electricity and natural gas. Three Parties (DEU, FIN, USA) also discussed bilateral projects that helped power generators switch from more carbon-intensive to less carbon-intensive fuels.

30. Bilateral projects to promote the use of renewable energy sources were reported by twelve Parties (AUT, BEL, CHE, DEU, FIN, FRA, GBR, ICE, NLD, NZL, SWE, USA). The most commonly supported renewable energy technologies are biomass, small hydro, solar, and wind, but two Parties (ICE, NZL) indicated support for geothermal energy technologies. Other non-conventional energy technologies reported on were coal bed methane, methane from landfills and fuel cells.

31. Finally, eleven Parties (AUT, BEL, CAN, CHE, DEU, FIN, FRA, GBR, NLD, SWE, USA) mentioned bilateral projects designed to improve end-use energy efficiency (e.g., buildings, motors, appliances). Little detail, however, was provided on these initiatives.

32. The other sector which received significant attention in the bilateral policies and programmes of most Parties was the forestry sector. Thirteen Parties (AUT, BEL, CHE, DEU, FIN, FRA, GBR, ICE, IRE, NLD, NZL, SWE, USA) described bilateral initiatives in this area. In general terms, these projects support sustainable land-use, improved soil and forest management, creation of protected areas and increased afforestation.

33. Six Parties (AUT, CHE, DEU, FRA, NZL, USA) discussed bilateral projects designed to help reduce greenhouse gas emissions from transportation. These initiatives focused on increased use of alternative transportation fuels (e.g., natural gas), support for urban public transport, and improved transportation planning and regulation.

34. Bilateral policies and programmes in other sectors related to the implementation of the Convention were reported on in much less detail. Three Parties (DEU, FIN, GBR) described initiatives supporting sustainable agriculture, one Party (DEU) described initiatives targeted at waste reduction, and two Parties (DEU, USA) described initiatives targeted specifically at reducing greenhouse gas emissions from industry.

35. Two Parties (DEU, FIN) provided some examples of the expected greenhouse gas emission reductions associated with particular bilateral climate change related projects. As a result, the secretariat has been unable to summarize in any quantitative form the potential benefits of such projects on the climate.

36. Six Parties (DEU, FIN, FRA, NLD, SWE, USA) also indicated that their bilateral assistance included cross-sectoral "country study" type programmes. In general, these initiatives are designed to help non-Annex II Parties meet their obligations under the Convention by providing resources and technical assistance to aid in assessing vulnerabilities to climate change, developing greenhouse gas inventories, identifying climate change mitigation and adaptation response options, developing climate change response strategies, and preparing national communications. In total, almost 60 non-Annex II Parties are participating in these initiatives. One Party (GBR) indicated that it was supporting similar work through its contribution to the GEF. A list of bilateral "country study" initiatives and participating Parties is found in the annex.

2. Adaptation

37 Article 4.1(e) requires Parties to cooperate in preparing for adaptation to the impacts of climate change. Five Parties (CAN, DEU, NLD, NZL, USA) described bilateral projects and programmes that will help countries adapt to climate change. The projects described aimed at improved coastal zone management, preservation of ecosystems on the edge of deserts, improved water use management in dry areas, and support for meteorological work and famine early warning systems. It was also noted by some Parties that much of the bilateral assistance directed toward sustainable forestry management will also facilitate adaptation to climate change. Two Parties (GBR, NOR) specifically noted that they had chosen to support projects directed at climate change adaptation through their contributions to the GEF.

Table 2. Bilateral financial contributions related to the implementation of the Convention - 1994
(US$ million)

	Africa	Asia and Pacific	Eastern Europe	Latin America and Caribbean	Total (by sector)
Energy	FIN 15.01 DEU 18.27 CHE 0.98 GBR 6.91	FIN 1.57 FRA 0.12 DEU 79.17 CHE 0.73 GBR 56.20	NLD 8.70 CHE 5.25 GBR 2.91	DEU 1.85 GBR 4.26	201.93
Transport	AUT 6.30 DEU 13.58	DEU 0.86 CHE 0.065			20.80
Forestry	AUT 2.30 FIN 3.89 DEU 36.11 CHE 0.058 GBR 8.50	AUT 0.40 FIN 0.85 FRA 1.00 DEU 19.44 GBR 25.41		AUT 7.30 FIN 3.95 DEU 8.64 GBR 4.46	122.31
Agriculture	DEU 21.79 GBR 11.57	DEU 21.60 GBR 27.16	GBR 5.02	DEU 5.37 GBR 3.641	98.11
Waste					-
Industry		DEU 6.17		CHE 0.87	7.04
Adaptation	NLD 0.08	DEU 9.26 NLD 0.21			9.55
Other	DEU 0.43	DEU 0.24	CHE 0.40		1.07
Total (by region)	145.78	250.45	22.28	42.30	460.81

NOTES TO TABLE 2, 1994

1. Finland has indicated that aside from what is reported in this table, it has provided bilateral financial transfers to Eastern European countries to prevent transboundary air and water pollution. From 1991-1996, 140 investment projects received US$50 million in funding and 430 technical aid projects received an additional US$17 million. It was also noted that Finland has undertaken debt for nature swaps in the region.

2. Norway has indicated that it provides 249 million NOK to Eastern Europe for general technical assistance with a focus on capacity-building and transfer of know-how and technology. It is not clear if this assistance is climate-related or which sectors receive the funding.

3. Canada provided no data on bilateral financial contributions in 1994, but it did describe a number of bilateral initiatives it has undertaken, primarily in Latin America and the Caribbean.

4. Iceland indicated that it is supporting geothermal energy projects in China, Lithuania, Romania and the Slovak Republic, and hopes to do future work in the areas of soil erosion and land reclamation, but it provided no data on bilateral financial contributions.

5. Ireland noted that it has a number of projects related to afforestation and land-use management in Africa, as well as projects to improve the operating efficiency and environmental performance of electrical systems in the Middle East and Africa, but it provided no data on bilateral financial contributions.

6. While Sweden provided no data on bilateral financial contributions, it did indicate that it does support projects in the areas of sustainable forestry and environmentally sound energy consumption and production.

7. The United States of America described 19 regional projects that are currently underway and have received or will receive US$541 million in funding over their lifetime. An additional 39 bilateral projects targeted at individual countries are also described and have received or will receive US$1.045 billion in funding over their lifetime. Data on bilateral financial contributions made in 1994 was not provided.

Table 3. Bilateral financial contributions related to the implementation of the Convention - 1995
(US$ million)

	Africa	Asia and Pacific	Eastern Europe	Latin America and Caribbean	Total (by sector)
Energy	FIN 1.16 FRA 3.30 DEU 43.00 CHE 0.71 GBR 7.04	FIN 2.32 DEU 144.06 NZL 0.04 CHE 1.37 GBR 104.96	 FRA 1.00 DEU 20.98 NLD 13.10 CHE 12.37 GBR 1.75	 CHE 0.63 GBR 0.53	358.32
Transport	AUT 6.40	 NZL 0.31		DEU 2.80	9.51
Forestry	AUT 2.00 FIN 3.44 FRA 1.20 DEU 32.66 CHE 0.07 GBR 3.67	AUT 0.30 FIN 1.15 DEU 53.85 NZL 3.36 GBR 38.43	 CHE 0.81	AUT 1.70 FIN 4.90 DEU 12.24 GBR 7.57	167.35
Agriculture	DEU 22.73 GBR 13.95	GBR 34.41	GBR 8.16	DEU 1.61 GBR 9.04	89.90
Waste		FRA 1.00			1.00
Industry		DEU 15.10	 CHE 2.87	 CHE 1.97	19.94
Adaptation	NLD 0.08	NLD 0.05 NZL 0.83			0.96
Other		DEU 1.05	 CHE 0.33	DEU 0.21	1.59
Total (by region)	141.41	402.59	61.37	43.20	648.57

NOTES TO TABLE 3, 1995

1. Finland has indicated that aside from what is reported in this table, it has provided bilateral financial transfers to Eastern European countries to prevent transboundary air and water pollution. From 1991-1996, 140 investment projects received US$50 million in funding and 430 technical aid projects received an additional US$17 million. It was also noted that Finland has undertaken debt for nature swaps in the region.

2. Norway has indicated that it provides 373 million NOK to Eastern Europe for general technical assistance with a focus on capacity-building and transfer of know-how and technology. It is not clear if this assistance is climate-related or which sectors receive the funding. Another 50 million NOK was provided to Asia for projects that disburse technology and ensure private sector participation. Once again, the links to climate or specific sectors are unclear.

3. Canada provided no data on bilateral financial contributions in 1995, but it did describe a number of bilateral initiatives it has undertaken, primarily in Latin America and the Caribbean.

4. Iceland indicated that it is supporting geothermal energy projects in China, Lithuania, Romania and the Slovak Republic, and hopes to do future work in the areas of soil erosion and land reclamation, but it provided no data on bilateral financial contributions.

5. Ireland noted that it has a number of projects related to afforestation and land-use management in Africa, as well as projects to improve the operating efficiency and environmental performance of electrical systems in the Middle East and Africa, but it provided no data on bilateral financial contributions.

6. While Sweden provided no data on bilateral financial contributions, it did indicate that it does support projects in the areas of sustainable forestry and environmentally sound energy consumption and production.

7. The United States of America described 19 regional projects that are currently underway and have received or will receive US$541 million in funding over their lifetime. An additional 39 bilateral projects targeted at individual countries are also described and have received or will receive US$1.045 billion in funding over their lifetime. No data was provided on bilateral financial contributions in 1995.

38. The total bilateral financial contributions made in 1994 by the eight Parties that completed the standard reporting table were US$ 460.81 million. This increased in 1995 to US$ 648 57 million. In the case of one Party, (NLD), the financial data reported do not include the bilateral financial resources provided to support cross-sectoral country study type programmes.

39. The vast majority of these bilateral financial contributions in 1994 and 1995 is directed toward the energy (50.50 per cent) and forestry (26.11 per cent) sectors. Smaller amounts support initiatives in agriculture (16.95 per cent) and relatively limited amounts of bilateral financial contributions are directed toward activities related to transportation (2.73 per cent), waste (0.09 per cent), industry (2.43 per cent) and adaptation (0.95 per cent).

40. The above figures could be compared with the data provided in document FCCC/TP/1997/1, where the sectorial distribution of bilateral aid from the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) in years 1994-1995 reported the following trends, energy (13.50 per cent), forestry and agriculture (11.18 per cent), transport (14.73 per cent), industry (1.73 per cent) while others sectors[4] totalled 64.74 per cent.

41. The region receiving the largest portion of bilateral financial assistance in the 1994-1995 period is Asia and the Pacific with a percentage of 58.86 of the total. Other regions received the following support: Africa 25.90 per cent, Eastern Europe 7.54 per cent and Latin America and the Caribbean 7.70 per cent.

42. The eight Parties that provided the standard reporting tables for bilateral financial assistance indicated that this assistance was distributed to 83 different countries in the 1994-1995 period. Ten countries, however, received 57 per cent of all the bilateral assistance reported. These ten countries were: China, India, Indonesia, Bangladesh, Pakistan, Egypt, Tanzania, Nepal, the Russian Federation, and Kenya.

C. Private Sector

43. Only one Party (USA) provides a substantive discussion of activities undertaken by the private sector that have transferred technologies that will help non-Annex II Parties mitigate or adapt to climate change. Some other Parties do make an occasional reference to private sector projects. As noted below, however, a number of Parties have reported on initiatives that are designed to facilitate such transfer of technology to non-Annex II Parties by the private sector.

44. Several multilateral initiatives help the private sector develop and disseminate technologies to mitigate climate change. Such programmes were specifically referenced in the national communications of four Parties (CAN, GBR, SWE, USA). Some of the specific

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[4] Among "other sectors" are included: social infrastructure, education, health and water supply.

initiatives mentioned include: the Climate Technology Initiative (CTI), the Greenhouse Gas Technology Information Exchange (GREENTIE), the Centre for the Analysis and Dissemination of demonstrated Energy Technologies (CADDET), and the International Model Forest Programme (IMFP).

45. Six Parties (CAN, CHE, DEU, GBR, NLD, USA) described a large number of initiatives they have designed to facilitate the transfer of technology that will help mitigate climate change to non-Annex II Parties through the private sector. These initiatives can be divided into three categories.

46. First, some initiatives provide financial support for the development and commercialization of private sector technologies to mitigate climate change. Examples include the provision of funding for the design and start-up costs of projects as a means to help leverage additional funding from both the private and public sector, or the provision of loans to support the research, development, and commercialization of technologies.

47. Second, some initiatives facilitate information sharing and personal contact between private sector technology producers and potential users of these technologies in non-Annex II Parties. Examples include multimedia databases that describe readily available private sector technologies, institutional partnerships, and the creation of networks that link technology producers and users.

48. Third, some initiatives provide support and technical assistance to members of the private sector seeking to make their technologies available in non-Annex II Parties. Examples include the facilitation of joint ventures and technology co-operation between members of the private sector in Annex II and non-Annex II Parties, or technical advice on promoting and adapting technologies for use in non-Annex II Parties.

D. Activities Implemented Jointly

49. Seven Parties (CAN, DEU, ICE, NLD, NOR, SWE, USA) described projects that had been undertaken to support the pilot phase of Activities Implemented Jointly (AIJ). Most of these Parties have described projects that are currently underway and either noted, or identified, specific additional projects under consideration at this time. Another two Parties (CHE, FRA) indicated that they had just begun to establish their own pilot programmes. Some governments are funders and participants in AIJ projects, while other governments have invested in the establishment of a programme to facilitate private sector investment in AIJ projects. One Party (NOR) noted that its investment in AIJ projects was "new and additional".

50. There was significant variation in the level of detail provided by reporting Annex II Parties on pilot AIJ projects. Most of the projects described are energy-related, and include projects that install new renewable energy capacity, switch from high carbon to low carbon fuels, and promote energy efficiency improvements in both energy supply and demand. Several Parties (CAN, DEU, ICE, SWE, USA) provided an estimate of the potential greenhouse

gas emission reductions associated with at least some of the projects described.

E. Conclusions

51. This document represents a retrospective compilation of actions undertaken by Annex II Parties as reported in their national communications. It provides an overview, but does not address more insightful questions that could enhance the quality and quantity of technology transfer. Questions that may provide more insights include: What programmes and projects have been successful? What effects have they had on developing countries? Why have they been successful? In order to answer such questions, it would not suffice to have a more complete reporting according to the present guidelines, although better reporting would provide a more comprehensive overview of the situation. When considering changes to the guidelines, it might be appropriate to see how reporting in a different manner might improve understanding of these questions.

52. A deeper comprehension may require a broader strategy than relying on national communications alone. Additional information could be obtained through regional seminars and workshops, analyses of other national and international reports, clarifications during the in-depth review process and enhanced co-operation with other international organizations.

53. Many multilateral organizations and programmes support the transfer of technology. However, it is difficult to assess how the financial contributions to the GEF have contributed to developing and transferring technologies since (a) information contained in national communications and that available from the GEF are difficult to compare and (b) the GEF thus far has not explicitly reported on this issue to the COP (see report of the GEF to the COP contained in document FCCC/CP/1996/8). It is also difficult to draw conclusions about financial contributions made to other multilateral institutions and programmes because reporting on these contributions was quite inconsistent.

54. The vast majority of bilateral projects related to the transfer of technology are found in the energy and forest sectors. Energy-related projects focus on promotion of renewable energy, energy efficiency improvements (supply, distribution and end-use), and energy sector management and market reform. The regions receiving the largest portion of bilateral financial resources are Asia and the Pacific and Africa, and the individual countries that have received the most assistance from reporting Parties are China, India, Indonesia, Bangladesh, Pakistan, Egypt, Tanzania, Nepal, the Russian Federation and Kenya.

55. Very little information was provided on transfer of technology by the private sector. A number of Parties did, however, report on initiatives that are designed to facilitate such transfer. These initiatives tend to be of three types:

(a) Financial support for the development and commercialization of private sector technologies to mitigate climate change;

(b) Initiatives that facilitate information sharing and personal contacts between private sector technology producers and potential users of these technologies, and

(c) Support and technical assistance for members of the private sector seeking to make their technologies available to non-Annex II Parties

IV. USE OF THE REPORTING GUIDELINES

56. The second compilation and synthesis of national communications from Annex I Parties (FCCC/CP/1996/12/Add.1) indicated that with regard to finance and transfer of technology, "the information that was reported by the Parties varied considerably in level of detail and breadth of coverage. Drawing comparisons between Parties was difficult as time-frames and levels of expenditures, and types of assistance were not comparable in all instances".

57. As a result, Parties, in decision 9/CP.2, stated that all Annex II Parties should report, in four standard reporting tables, information on financial contributions to the operating entity or entities of the financial mechanism, to regional and other multilateral institutions and programmes, and on bilateral financial contributions related to the implementation of the Convention. The extent to which reporting Annex II Parties have provided this information in a standard format is presented in table 4.

Table 4. Provision by Annex II Parties of data tables requested on multilateral and bilateral financial contributions

Country	Table 9a Financial contributions to multilateral institutions and programmes	Table 9b New and additional financial contributions to multilateral institutions and programmes	Table 10a Bilateral financial contributions related to the implementation of the Convention	Table 10b New and additional bilateral financial contributions related to the implementation of the Convention
AUT	Yes (1994-96)	Yes (1994-96)	No	Yes (1994-96)
BEL	No	No	No	No
CAN	Yes (1994-96)	No	Yes (1995)	No
CHE	Yes (1994-95)	No	Yes (1994-95)	No
DEU	No	Yes (1994-96)	Yes (1994-95)	No
FIN	Yes (1994-96)	Yes (1994-96)	Yes (1994-96)	No
FRA	Yes (1994-95)	No	Yes (1994-96)	No
GBR	Yes (1994-96)	No	Yes (1994-96)	No
ICE	Yes (1994-96)	No	No	No
IRE	Yes (1995-97)	No	No	No
NLD	Yes (1994-96)	No	Yes (1994-96)	No
NOR	No	No	No	No
NZL	Yes (1994-96)	No	Yes (1994-95)	No
SWE	No	No	No	No
USA	No	No	No	No

58. In general, the standard reporting tables were not widely used. No Party provided all four of these reporting tables in their national communication. Four Parties (ICE, NOR, SWE, USA) failed to include any of these tables and two Parties (BEL, IRE) only included one table. The remaining Parties all included at least one partially completed table for each of their multilateral and bilateral financial contributions. Only two Parties (AUT, FIN) provided three of the four

tables. In reviewing the national communications, it appears clear that several areas of the reporting guidelines posed a challenge to Parties.

59. First, although eleven Parties provided at least one table detailing their financial contributions to multilateral institutions and programmes (AUT, BEL, CAN, CHE, DEU, FIN, FRA, GBR, IRE, NLD, NZL), the reporting guidelines specifically identify a number of multilateral institutions and programmes that should be reported on. Only two Parties (CHE, GBR) provided data on financial contributions to all of these institutions and programmes.

60. The Parties that reported on their financial contributions to specific multilateral institutions and programmes usually provided their entire contribution, whether or not it was used for purposes related to the aims of the Convention. This is consistent with the revised reporting guidelines. It seems that some Parties were unclear, however, about what financial contributions should be reported. DEU, which did not provide data on funding for many of the individual multilateral programmes and institutions identified in the reporting guidelines, noted that "it is impossible to separate out from this funding (contributions of DEU to multilateral institutions) those payments that relate directly to the aims of the FCCC".

61. Second, although nine Parties (AUT, CAN, CHE, DEU, FIN, FRA, GBR, NLD, NZL) provided at least one table detailing their bilateral financial contributions related to the implementation of the Convention, it appears that some Parties had difficulty determining what portion of their bilateral assistance was related to the implementation of the Convention. Norway, which did not provide a table, noted that "significant environmental side-effects consistent with promoting the Convention ... are not the primary purpose of development assistance (and) they have been rather scarcely recorded and assessed".

62. Third, the issue of "new and additional" financial contributions seemed to pose a challenge to Parties. Only three Parties (AUT, DEU, FIN.) provided a table outlining "new and additional" financial contributions to multilateral organizations and programmes. One other Party (NZL) indicated that it considered its contribution to the GEF to be "new and additional". Only one Party (AUT) identified "new and additional" bilateral financial contributions.

63. Several Parties appear to have had some difficulty defining and separating "new and additional" funding from all multilateral and bilateral assistance. The NLD noted that "although the bilateral assistance activities in the specific field of climate change are new and additional ... it is not really possible to list them separately from other development assistance projects and components". CAN stated that the "issue of what constitutes new and additional contributions is unclear".

64. Fourth, although Parties are to provide detailed information on measures related to transfer of technology, only two Parties (DEU, USA) provided a detailed description of specific individual bilateral projects related to technology transfer. While Parties were encouraged, to the extent possible, to report such information through a standard table provided in the reporting guidelines, DEU was the only country that made use of the table.

Annex

EXAMPLES OF BILATERAL COUNTRY STUDY INITIATIVES AND PARTICIPANTS

Finland - Finalization of national programme for implementation of international Convention on Climate Change and Montreal Protocol:

Participant: Nicaragua

France - Centre national de la recherche scientifique:

Participants: Brazil, Côte d'Ivoire, Senegal, and Thailand

Germany - Immediate aid measures for implementation of the FCCC:

Participants: China and Indonesia

The Netherlands - Climate study programme:

Participants: Bolivia, Costa Rica, Ecuador, Ghana, Senegal, Suriname, and Yemen

United States of America - Country studies programme:

Participants: Argentina, Bangladesh, Belize, Bolivia, Botswana, Brazil, Bulgaria, Chile, China, Costa Rica, Côte d'Ivoire, Czech Republic, Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Fiji, Gambia, Guatemala, Honduras, Hungary, Indonesia, Kazakstan, Kenya, Kiribati, Malawi, Marshall Islands, Mauritius, Mexico, Micronesia, Mongolia, Mozambique, Nepal, Nicaragua, Nigeria, Oman, Panama, Peru, Philippines, Poland, Romania, Russian Federation, Samoa, Slovakia, South Africa, Sri Lanka, Tanzania, Thailand, Uganda, Ukraine, Uruguay, Venezuela, Zambia, and Zimbabwe

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